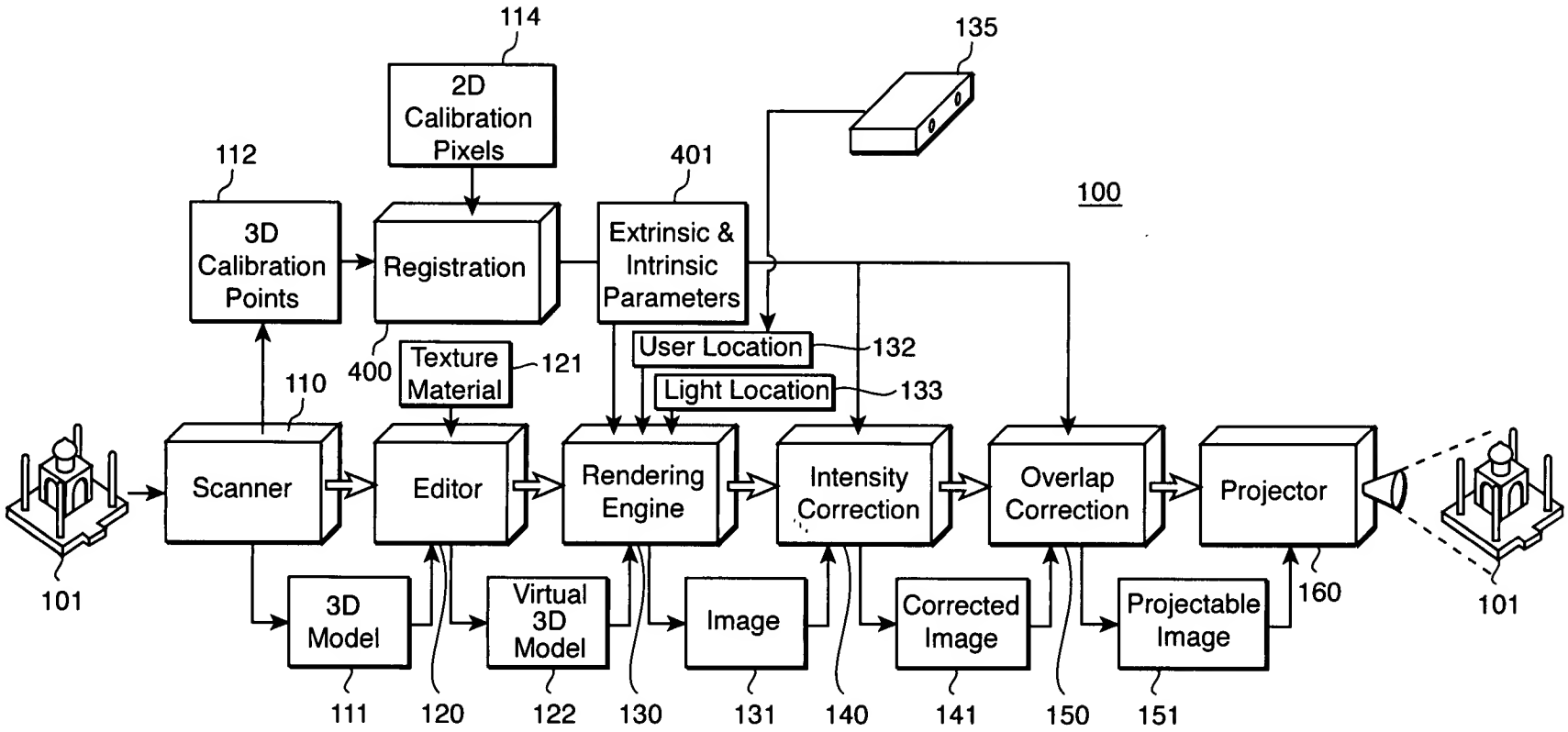

114
2D Calibration Pixels
135
112
401
100
3D Calibration Points
Registration
Extrinsic & Intrinsic Parameters
User Location
132
400
Texture Material
121
110
Light Location
133
Scanner
Editor
Rendering Engine
Intensity Correction
Overlap Correction
Projector
101
101
3D Model
Virtual 3D Model
Image
Corrected Image
Projectable Image
160
111
120
122
130
131
140
141
150
151

FIG. 1

```
glMatrixMode( GL_PROJECTION );
glLoadMatrix( intrinsic matrix of projector );
glMultMatrix( xform for rendering view )
glMultMatrix( inverse(xform for shading view) );
glMatrixMode( GL_MODEL VIEW );
glLoadMatrix( xform for shading view );
// set virtual light positon(s)
// render graphics model
```

200

FIG. 2

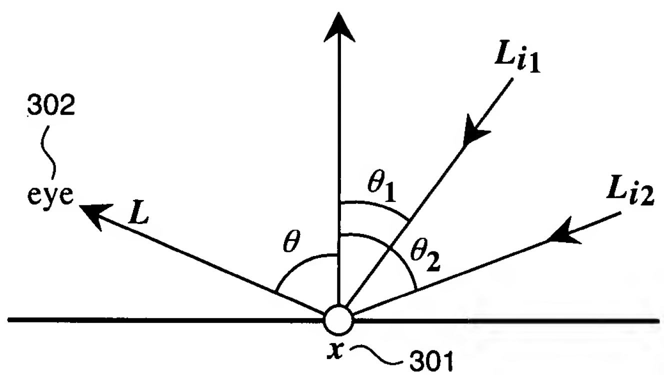


FIG. 3a

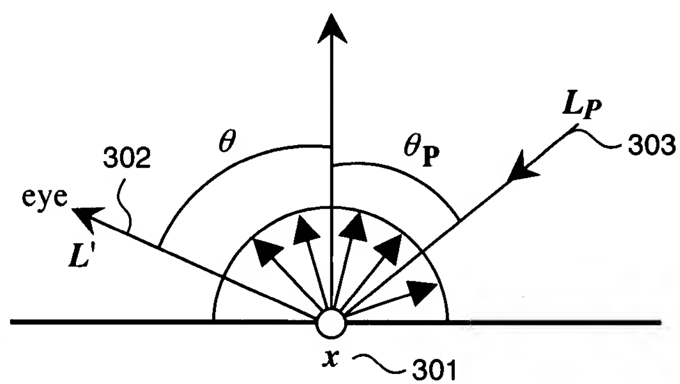


FIG. 3b

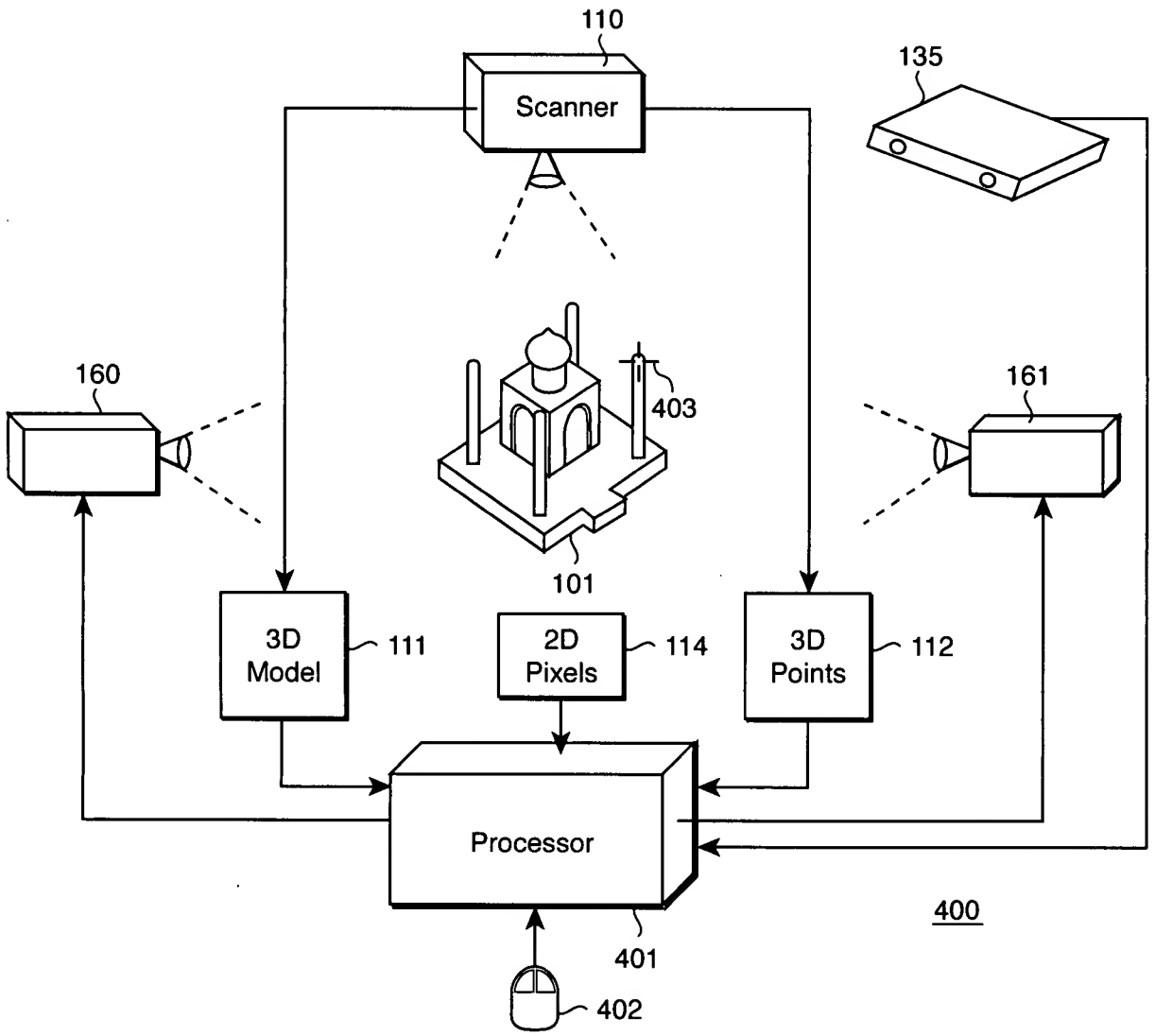


FIG. 4

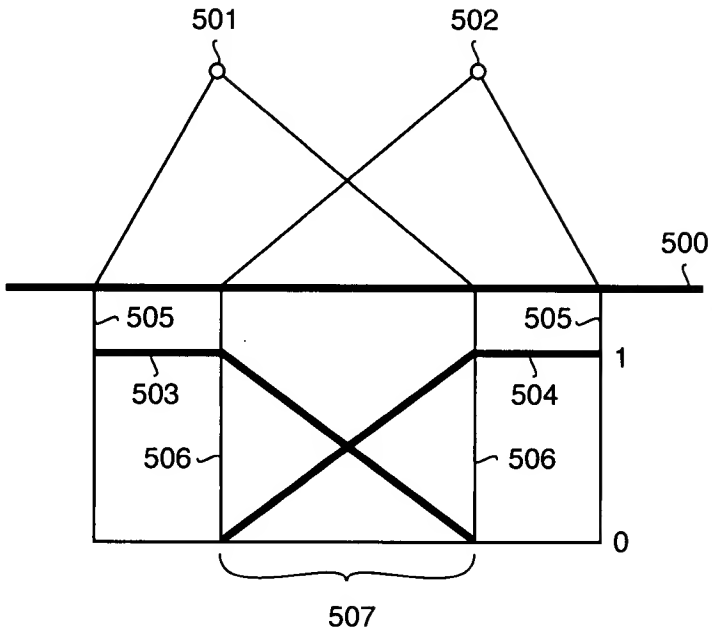


FIG. 5
PRIOR ART

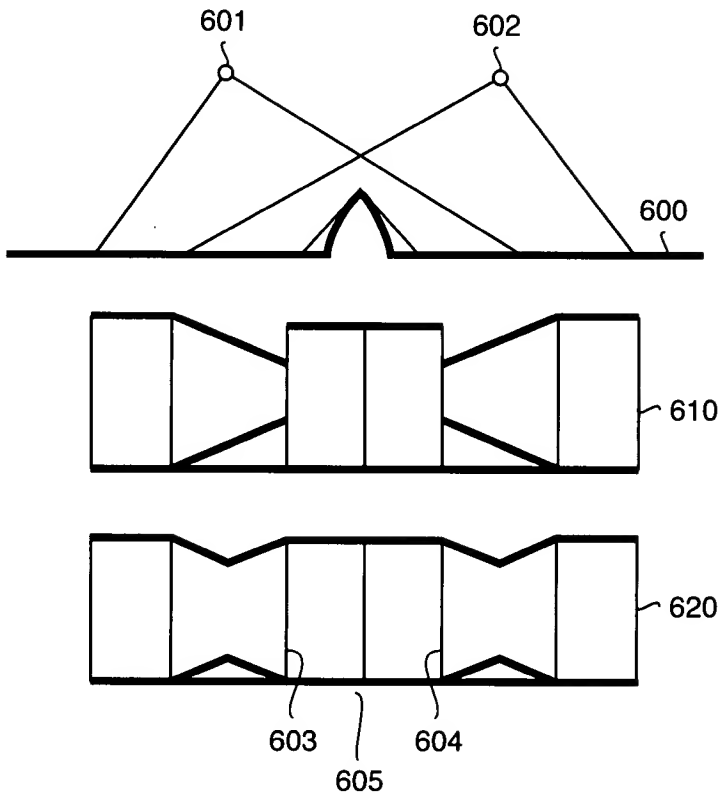
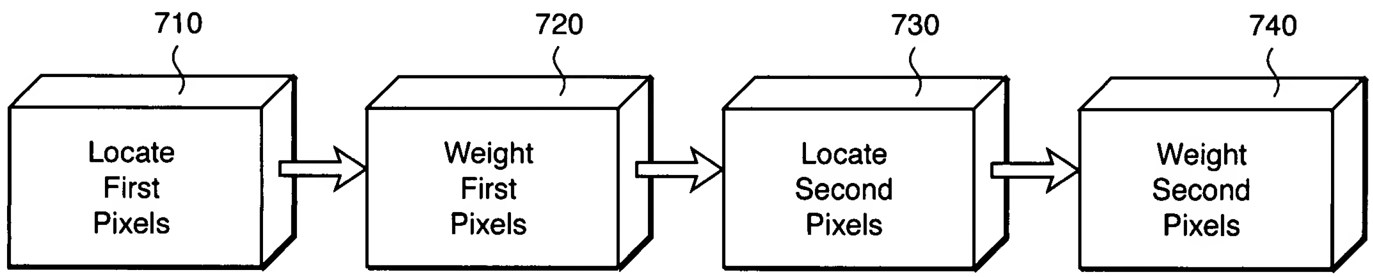


FIG. 6



700

FIG. 7

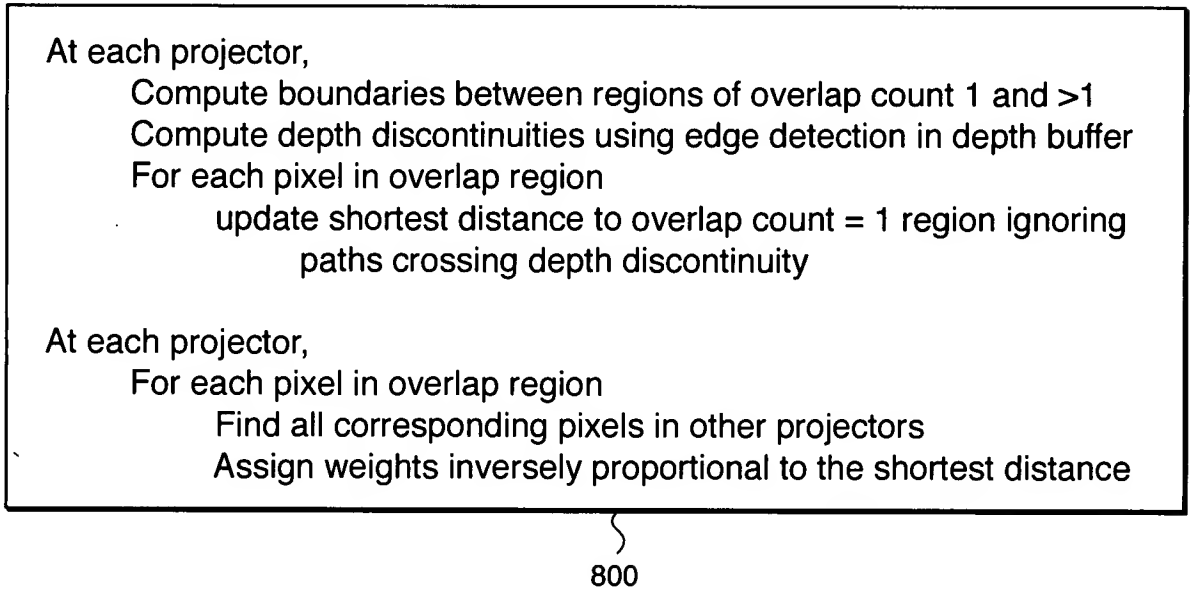


FIG. 8

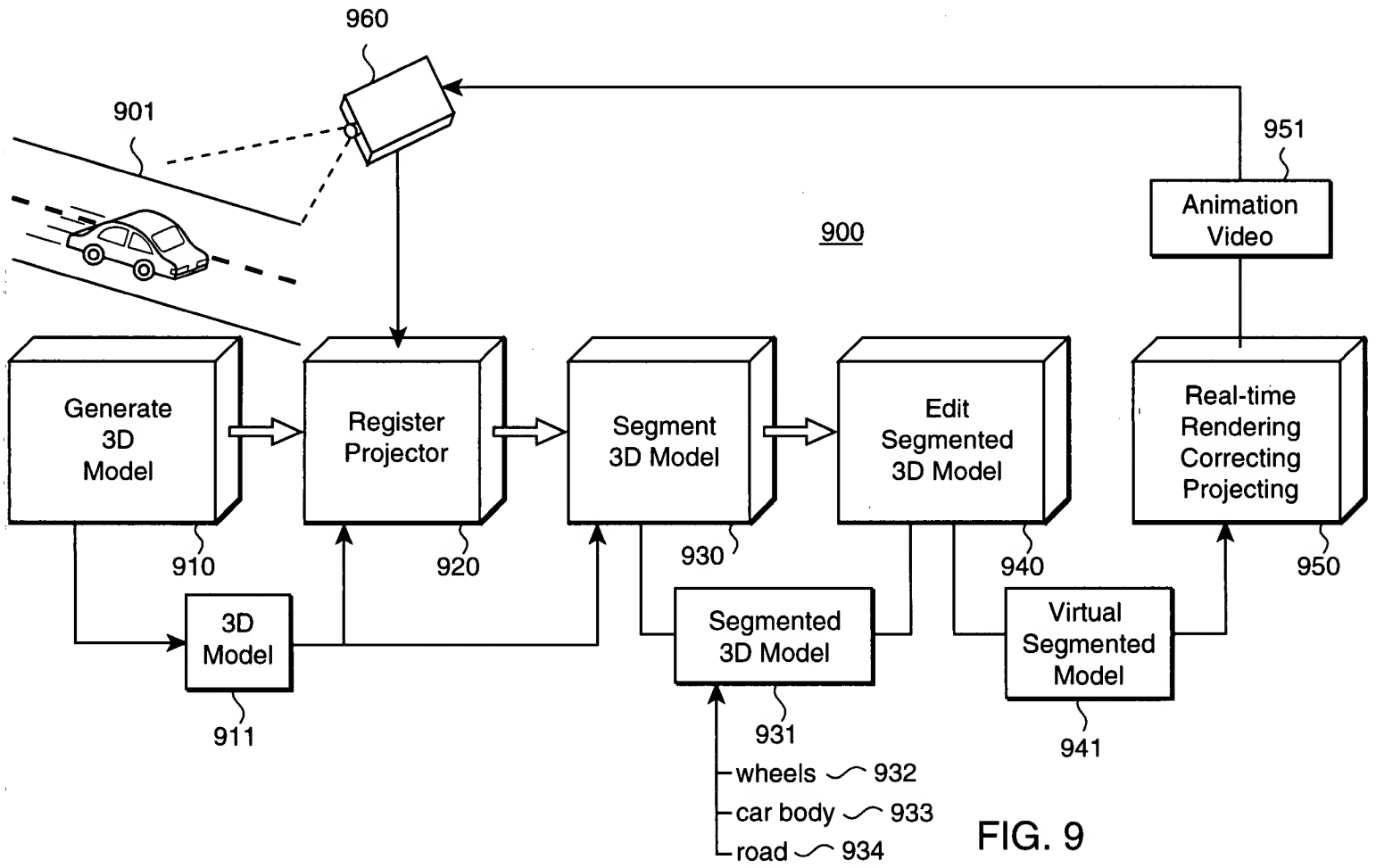

960
901
951
Animation Video
900
Generate 3D Model
Register Projector
Segment 3D Model
Edit Segmented 3D Model
Real-time Rendering Correcting Projecting
910
920
930
940
950
3D Model
911
Segmented 3D Model
931
wheels 932
car body 933
road 934
Virtual Segmented Model
941

FIG. 9